Request for Economic Stimulus Funds

Concept Proposal

Submitters (Name of Workgroup & Chair/Co-Chairs):

Phillip C. Womble, WKU, Chair
James Tidwell, KYSU
Max Wise, Campbellsville
Fred Payne, UK
Christi McMichael, Morehead
Arthur Hayden, KYSU

Project Title:

Agricultural Safety through the Integration of Food Traceability Infrastructure

Project Partners (Known or Anticipated):

- TranSecurity Systems, Inc, Lexington, KY – a company that is commercializing the milk transport security system developed by the University of Kentucky with funds from DHS through the National Institute for Hometown Security.
- Ag Connections has the system described above working for horticultural and row crops. (Except tier b). It includes a powerful communications and multi-terabyte data-storage infrastructure.
- Agricultural extension and county agricultural development councils throughout the state of Kentucky

Project Background & Purpose (Justification for Project):

The Commonwealth of Kentucky is an agricultural state comprised of 83,000 farms that generated an agricultural sector output of $5,331,346,000 in 2007. The Commonwealth consistently ranks in the top 10 among states in various agricultural commodities and exports (USDA, 2009).

Agroterrorism, particularly of livestock, is an issue of concern in the post-9/11 era. Phillips (2009) reports that while some progress has been made by the government in improving the protection of the nation's food supply against agroterrorism, many challenges persist. Phillips cites a report by the Congressional Research Service that concluded there is an increased potential for terrorists attacks against agricultural targets.

Agroterrorism is part of the new awareness that consumers have with regard to food safety. Consumers, health department officials, and law enforcement officers which investigate agroterrorism have a need to trace food back to the farm where it was produced. The ability to trace agricultural items to their point of origin is very important to protecting the public.

WKU, UK, and UL have developed a milk transport security and traceability system which provides both security during transport between the farm and processor and traceability of milk back to the farm (point of origin). This traceability system has features which will allow it to be applicable for tracing other agricultural commodities from their point of origin. It can potentially be implemented to create a system whereby the milk could be traced from the farmer to the consumer. We propose greatly expanding these food security and traceability ideas to provide traceability of all agricultural products from the farm (point of origin) to their first distribution point. More importantly, we wish to create a uniform protocol for agricultural product traceability and integrate existing product tracing methods into a single information system which can be accessed by the public as well as public safety officials.

There is ample opportunity for all of Kentucky's universities to participate in this project. A state-wide consortium of universities could provide the leadership to coordinate a program to develop the technologies and practices and demonstrate them for several Kentucky produced commodities. This effort will require efforts beyond the ability of a single university to provide. It is an excellent opportunity for a state-wide consortium of universities.

Project Description (General Goals & Implementation Strategies):

Project Deliverable: A pilot program extending across the state of Kentucky will be developed which will provide traceback of major agricultural products (dairy, whole fruits and vegetables, poultry, fish, etc.) from their point of origin to the first distribution point. A successful project will give the state of Kentucky a uniform system for tracing Kentucky produced agricultural commodities from the point of origin to the first distributor. This project will also position the state of Kentucky in a leadership position for nation in this effort.

Project Plan:

1) Assess current agricultural product traceback infrastructure and identify gaps.
2) Work with food producers and farmers to create a uniform protocol for traceback data format
3) Develop a database system which store the information, be user friendly so that it can be accessed by the public (website or cell phone application) to trace agricultural products back to the point of origin, and allow it to accepts proprietary protocols for traceback information.

4) Work with agricultural producers to develop a system whereby agricultural products can be cost effectively marked at the point of origin and along each waypoint to the consumer.
5) Develop a program to inform the relevant stakeholders (producers, regulators, consumers etc.) about the information system and its advantages.
6) Perform market surveys to find market-value of food traceability to the general public (are they willing to pay more for food traceability).
7) Demonstrate a system on a focused group of Kentucky grown commodities.

Project Team (Project Manager(s), Content Experts, Instructional Designers, etc.):
The initial project team will consist of Arthur Hayden, KYSU, Christi McMichael, Morehead, Fred Payne, UK, Max Wise, Campbellsville, Phil Womble, WKU, and James Tidwell, KYSU. This group will seek out and coordinate technical expertise throughout the state.

Project Budget & Amount of Economic Stimulus Funds Requested:

A ROM cost of $5,000,000 is projected for this effort. These monies would be distributed to participating universities according to their level of effort.